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Congressional Documents.

REPORT OF THE SECRETARY OF WAR.

"The report of the Secretary of War will bring you acquainted with the condition of that important branch of the public service. The army may be regarded, in consequence of the small number of the rank and file in each company and regiment, as little more than a nucleus around which to rally the military force of the country in case of war, and yet its services in preserving the peace of the frontiers are of a most important nature. In all cases of emergency the reliance of the country is properly placed in the militia of the several States; and it may well deserve the consideration of Congress whether a new and more perfect organization might not be introduced, looking mainly to the volunteer companies of the Union for the present, and of easy application to the great body of the militia in time of war.

"The expenditures of the War Department have been considerably reduced in the last two years; contingencies, however, may arise which would call for the filling up of the regiments with a full complement of men, and make it very desirable to remount the corps of dragoons which by an act of the last Congress was directed to be dissolved."—*President's Message.*

WAR DEPARTMENT, *Nov.* 30, 1843.

SIR: I beg leave to submit the Annual Report of the Department of War.

The accompanying documents, marked respectively from 1 to 10 inclusive, contain the detailed statements furnished by the commanding Major General, and the several bureaus of the Department of War, of the business under their respective and immediate charge, and their views in relation to the same.

ORGANIZATION.

The regular army consists of 716 commissioned officers, 17 military storekeepers, and 7,590 enlisted men, (non-commissioned officers, artificers, musicians and privates, of dragoons, artillery, infantry, and riflemen,) 40 sergeants, and 250 enlisted men, of ordnance; making an aggregate of 8,613, organized as follows:

General and Staff Officers.—One Major General, two Brigadier Generals, one Adjutant General; six Assistant Adjutants General; two Inspectors General; one Quartermaster General; two Deputy Quartermasters General; four Quartermasters and twenty-eight Assistant Quartermasters; one Commissary General, one Assistant Commissary General, and six Commissaries of Subsistence.

Medical Department.—One Surgeon General, twenty Surgeons, and fifty Assistant Surgeons.

Pay Department.—One Paymaster General and fifteen Paymasters.

Corps of Engineers.—One Colonel, two Lieutenant Colonels, four Majors, twelve Captains, twelve First Lieutenants, and fifteen Second Lieutenants.

Corps of Topographical Engineers.—One Colonel, one Lieutenant Colonel, four Majors, ten Captains, ten First Lieutenants, and twelve Second Lieutenants.

Ordnance Corps.—One Colonel, one Lieutenant Colonel, four Majors, ten Captains, six First Lieutenants, and eleven Second Lieutenants.

One Regiment of Dragoons, containing ten companies of fifty privates each: Four Regiments of Artillery, each containing ten companies of forty-two privates each: Eight Regiments of Infantry, each containing ten companies of forty-two privates: One Regiment of Riflemen, of ten companies of fifty privates each.

The present actual force of the army, according to the latest returns, is 7,841, being an excess over the legal establishment of 254 enlisted men. It is estimated that this excess will disappear by the end of the year.

The United States are divided into nine military departments, commanded each by a General Officer or Colonel.

The first Military Department, commanded by Brevet Brigadier General Arbuckle, embraces West Florida, Alabama, Mississippi, Louisiana, Tennessee, and Kentucky; headquarters, New Orleans. It contains seven garrisoned posts, viz: Fort Pickens, near Pensacola, 116 officers and men; Fort Morgan, Mobile Bay, 106; Fort Pike, Petite Coquille, 52; Fort Wood, near New Orleans, 63; New Orleans Barracks, 110; Baton Rouge Barracks, 103; Fort Jesup, Louisiana, 418: aggregate, 968.

The 2d Military Department, commanded by Brevet Brigadier General Taylor, embraces the country west of the Mississippi, north of Louisiana and Texas, and south of the 37th degree of north latitude; headquarters, Fort Smith. It contains four garrisoned posts, viz: Fort Smith 110 officers and men; Fort Gibson 388; Fort Towson 251; Fort Washita 265; aggregate 1,014.

The 3d Military Department, commanded by Brevet Major General Gaines, (temporarily by Colonel Kearney, Dragoons,) embraces the State of Missouri, (above the 37th degree of north latitude,) Illinois, Iowa, that part of Wisconsin Territory west of the 13th degree of longitude west of Washington, and

the Indian country north and west of the lines indicated. It contains seven garrisoned posts, viz: Fort Scott, on the Marmiton, near the southwest boundary of Missouri, 195 officers and men; Fort Leavenworth, three hundred miles above Saint Louis, 381 officers and men; Jefferson Barracks, near St. Louis, 956; Fort Des Moines, on the river of that name, 107; Fort Atkinson, on Turkey river, Iowa, west of Prairie du Chien, 102; Fort rawford, Prairie du Chien, 201; Fort Snelling, Falls of St. Anthony, 195; aggregate 2,137.

The 4th Military Department, commanded by Brevet Brigadier General Brady, headquarters Detroit, embraces the States of Indiana, Ohio and Michigan, the part of Wisconsin Territory not included in the 3d D partment, and the Indian country north. It contains five garrison posts, viz: Fort Winnebago, Wisconsin Territory, at the portage, 57 officers and men; Fort Brady, Sault de St. Marie, 74; Fort Mackinac, 135; Fort Gratiot, Michigan, 112; Detroit Barracks, 312; aggregate, 690.

The 5th Military Department, commanded by Brigadier General Wool, headquarters at Troy, embraces the States of Pennsylvania, New York, Vermont, New Jersey, Connecticut, and Rhode Island. It contains 12 garrisoned posts, viz: Buffalo Barracks, 231 officers and men; Fort Niagara, near Youngstown, 53; Fort Ontario, near Oswego, 61; Madison Barracks, near Sacketts Harbor, 162; Plattsburg Barracks, 80; Fort Adams, near Newport, 202; Fort Trumbull, near New London, 60; Fort Columbus, 357: Forts Lafayette 62, and Hamilton 129, in New York harbor; Fort Mifflin, near Philadelphia, 70; Carlisle Barracks, 67; aggregate, 1,534.

The 6th Military Department, commanded by Colonel Crane, 1st Artillery, headquarters at Portsmouth, New Hampshire, embraces the States of Massachusetts, New Hampshire, and Maine. It contains four garrisoned posts, viz: Hancock Barracks, at Houlton, Maine, 272 officers and men; Fort Sullivan, Eastport, 62; Fort Preble, near Portland, 69; Fort Constitution, near Portsmouth, 65; aggregate, 468.

The 7th Military Department, commanded by Colonel Walbach, 4th Artillery, headquarters, Fort Monroe, Virginia, embraces the States of Delaware, Maryland, and Virginia. It contains three garrisoned posts, viz: Fort McHenry, near Baltimore, 123 officers and men; Fort Severn, Annapolis, 58; and Fort Monroe, Virginia, 420; aggregate, 601.

The 8th Military Department, commanded by Brevet Brigadier General Armistead, headquarters Fort Moultrie, Charleston harbor, embraces the States of North and South Carolina, and Georgia. It contains five garrisoned posts, viz: Fort Johnston, Smithville, North Carolina, 64 officers and men; Fort Moultrie, Charleston harbor, 326; station near Augusta Arsenal, Georgia, 56; Oglethorpe Barracks, Savannah, Georgia, 107; aggregate, 518.

The 9th Military Department, commanded by Brevet Brigadier General Worth, headquarters St. Augustine, embraces East and Middle Florida. It contains three garrisoned posts, viz: Fort Marion, at St. Augustine, 251 officers and men; Key West, 95 men; Fort Brooke, Tampa Bay, 277; aggregate, 623.

Major General Scott has the immediate command of the Army. His headquarters, for the convenience of communication with the Department, is at Washington.

The adjutant General is stationed at headquarters. He is charged with the duty of issuing and disseminating General Orders from the President, the Department of War, and Commanding General, affecting the Army proper, and the various departments into which it is distributed. He has also charge of the records and military correspondence of the Army, and the superintending of the recruiting service.

The Quartermaster General has charge of the Quartermaster's Department of the Army, which embraces quarters, transportation, clothing, &c. The latter item has been added to his duties by the act of 23d August, 1842, which abolished the office of Commissary General of Purchases.

The Commissary General of Subsistence has charge of the subsistence of the entire army, and the supervision and preparation for settlement of all accounts connected therewith.

The Paymaster General has, as the title of his office would indicate, the charge of paying the troops, and the supervision and preliminary settlement of the accounts of the paymasters of the Army.

The Surgeon General has charge of the Medical Department of the Army, including hospitals, hospital stores, medicines, and the surgeons and assistant surgeons of the Army.

The Engineer Bureau, in charge of the Colonel of that Corps, has the care and supervision of the erection and repair of fortifications, and the Military Academy.

The Topographical Bureau, under charge of the Colonel of that Corps, has charge of all the military and civil surveys under the Department, military reconnoisances, the construction of all civil works, roads, and harbor improvements.

The Ordnance Bureau has charge of that branch of the service relating to arms, equipments, and munitions of war. To it has also been confided the charge of our mineral lands.

The Pension Bureau is in charge of the Commissioner of Pensions; who, under the direction of the Secretary of War, executes the duties of examining and deciding on claims for pensions under the several acts of Congress, granting allowances to officers and soldiers of the Revolutionary War, and their widows, as well as to invalids, rendered so in the military service of the United States.

The Commissioner of Indian Affairs has, as the title indicates, charge of the multifarious relations subsisting between the United States and the various Indian tribes.

REDUCTIONS.

By the act of the 23d of August, 1842, very considerable reductions were made in the army. The reductions provided for by that act are being carried out according to its provisions, and the expirations of the terms of enlistments, discharges, and deaths will soon reduce the army below the number author-

ized by law, so as to require enlistments of recruits to keep up the number. That law abolished the office of one Inspector General, three Paymasters, two Surgeons, and two Assistant Surgeons, and directed that number of Paymasters, Surgeons, and Assistant Surgeons, to be discharged within one month after its passage, but gave no such directions as to the discharge of one Inspector General, and consequently both are yet retained in service; and the appropriation acts for the last and present years provided means for the payment of the compensation allowed by law. It is respectfully recommended that so much of the 4th section of the act of 23d August, 1842, entitled "An act respecting the organization of the army, and for other purposes," as abolishes the office of one Inspector General, be repealed. The services of the two valuable and experienced officers filling those stations are deemed essential to the well being of the army.

The first section of the same act converted the 2d regiment of Dragoons, after the 4th of March last, into a Regiment of Riflemen. The regiment has accordingly been dismounted, and the horses sold. It is respectfully recommended that this provision of that law be repealed, and the said regiment be remounted, and continued as the 2d regiment of Dragoons. This can be effected at a very moderate expense; an advance of perhaps twenty per cent. on the amount for which the old horses were sold will furnish them with new and better horses. Their uniform has not been changed, in consequence of the quantity of Dragoon clothing on hand, and a hope that the result now recommended might be consummated. The extended frontier on our entire west is subject to Indian incursions. Many of the tribes are mounted, and it is impossible either to overtake them, to protect the inhabitants, or repress the marauding of the savages by the small body of mounted soldiers which would be stationed on that frontier or in the Indian country, or brought to act against them. Celerity of movement is required, and is of the utmost importance to the security of our citizens. This can, it is believed, alone be completely effected by Dragoons, and the single regiment in service is not sufficient for the purpose.

DUELLING.

Some further provision is believed to be necessary effectually to prevent duelling between officers of the army and citizens; and many of the officers who constitute the military courts holding that the provisions of the 25th, 26th, and 27th sections of the rules and articles of war have relation only to officers of the army in disputes among themselves. The propriety of this construction is at least doubtful, but explicit legislation on the subject would put the matter beyond all doubt. The practice is a barbarous one, and should be suppressed in a civilized and Christian country. To the credit of the army it must be said that it has been almost, if not entirely abolished, among the officers; and their gentlemanly and decorous conduct towards each other has prevented disputes and trials for alleged offences in an almost unprecedented degree.

DISPOSITION OF TROOPS.

The officers and men have been kept in a constant state of employment, and there have been but few removals of troops from one post to another. The state of our relations with Great Britain has enabled the Commanding General to withdraw from Forts Fairfield and Kent, on the Northeastern frontier, the troops there stationed. Their positions were such as to render subsistence very expensive, and to have kept them there would have involved the cost of cutting a military road to those posts, from Houlton, at an enormous charge, and without any adequate or corresponding benefit. This movement led to the change of some other troops stationed in the Eastern States, so as to bring the 2d Regiment of Artillery more immediately under the command of its own Colonel. Several companies have been removed from Florida to other posts, there being no apprehension of any danger in that region from Indians; the number of warriors remaining being now reduced to less than one hundred, and they evincing no hostile disposition.

ESTIMATES.

The estimates for the Army proper for the ensuing year, it will be perceived, fall $90,648 10 short of those of the last year, although it embraces $27,364 70 for the expenses of recruiting, which was not required last year, in consequence of the reduction of the army, and $9,420 for the three months' pay allowed to the men whose term of service will expire during the current year and may re-enlist.

REPORT OF THE COMMANDING GENERAL.

To the many valuable suggestions contained in the report of the Commanding General, attention is invited. From his known ability and experience, they are entitled to the highest respect. The statements from the office of the Adjutant General, accompanying that report, give in minute detail the statement and condition of the whole army, arranged with system and order.

QUARTERMASTER'S DEPARTMENT.

The Quartermaster's Department is to be classed as a part, and a most essential part, of the army proper. The report of the Major General in charge of this branch of the service contains his views in relation thereto. To his suggestions, as those of knowledge and experience, I respectfully ask attention, and especially to so much as relates to the importance of officers of the line being detailed in order for the staff duties of the Department, thus making them more proficient in both branches of service; to the propriety of erecting barracks and defences at Forts Gibson and Brady; and also to the necessity of furnishing other buildings than casemates for the quarters of the men, as well as for hospitals in the regular fortifications which have been erected. This is a measure essentially necessary for the comfort and health of the troops, and for which appropriations will be necessary.

If the present regulation in regard to travelling expenses is found to work oppressively, it can be changed or modified by the Secretary of War with-

out further legislation. It was adopted by my predecessor, to correct what was believed to be an abuse of the former system.

The Quartermaster General's Department is efficiently organized and faithfully administered. Its importance is manifest to all military men, and I think it cannot be diminished without essential injury to the interests of the service. In regard to the Staff of the Army, it may be laid down as a sound rule, that it should never be regulated by the number of troops in the line, but by the extent of the country over which the army is spread. Hence our staff must necessarily, in time of peace, be more disproportionate to the number of troops in service than that of any other nation on the globe.

OEFICE OF COMMISSARY GENERAL OF SUBSISTENCE.

The business of the Subsistence Department has been performed with great accuracy and method. The troops have been well and regularly supplied at reduced cost, and the accounts, as the Commissary General truly states, have been promptly rendered.

PAYMASTER GENERAL'S OFFICE.

The report of the Paymaster General exhibits the state of that Department in a very satisfactory manner, and shows that its head has kept up a strict accountability, and caused the troops to be paid with as much promptness as their scattered positions would admit.

SURGEON GENERAL'S OFFICE.

The report of the Surgeon General exhibits a gratifying evidence of the fidelity with which the medical branch of the military service has been administered, and shows that by the observance of a strict system of economy, compatible with the care and attention due to the sick and infirm, a considerable reduction has been made in the average cost of medical supplies per man.

With this report are submitted the Meteorological reports from the various military posts, and the report of Professor Espy in relation to the observations as to the progress and course of storms, &c., taken at the same and other places. These furnish numerous important as well as curious facts in those branches of science, which, when tested by further observations, may lay the foundation for definite knowledge on subjects heretofore little studied and understood.

The observations of the Surgeon General in relation to the use of casemates for quarters and hospitals at permanent fortifications (which subject is also adverted to in the Quartermaster General's report) are respectfully submitted, as showing the existence of an evil which sound policy, as well as humanity, requires to be remedied.

ENGINEER BUREAU.

The report from the Engineer Bureau gives in detail, a statement of the operations of that corps, as well to the fortifications which are directly within its province as in relation to the Military Academy which, by act of Congress, is placed under its immediate care. The business of this department in the construction of fortifications authorized by law, has progressed with spirit and efficiency, and the utmost attention has been given to the work, as well by the commandant who has supervised and directed the whole, as by the several officers in charge of the respective works. This is manifested by the progress to completion of many of them, and the progress towards it in others within the past year.

The report of this department cannot well be condensed or referred to in detail, but is recommended to attention as containing a very full and interesting account of the state and condition of our works of defence, the necessary repairs to be made in existing works, and of the appropriations deemed necessary thereto. It also contains recommendations for the purchase of the State works and sites on Staten island, with a view to their reconstruction, the commencement of fortifications at Sandy Hook; at Soller's Point, in Maryland; on the coast of Georgia; between Mobile Bay and the Rigolets; on the approaches to New Orleans, described in the report; the closing of Hog Island Channel, Charleston harbor, South Carolina; the continuation of the Cumberland Road through Ohio, Indiana, and Illinois; and the payment of the sum of $1,359 80 incurred in making a survey for the continuation of that road to Jefferson city, Missouri, under a resolution of the Senate of January, 1839; all which are respectfully recommended to attention.

It is deemed proper to add that the construction of military works upon the Dry Tortugas, Key West, and Biscayne Key, or such other positions on and near the extremity of the Peninsula of Florida, as on examination and survey shall be found most eligible, is deemed of great importance, if not essentially necessary, in our line of coast defences.

The Military Academy at West point exhibits continued evidence of improvement in the course of instruction, and the Academic Board are endeavoring to keep pace, in their system, with the advances which science is making in all parts of the world. It continues annually to graduate a number of young gentlemen, taught, at the public expense, those branches of science which are deemed essential to military operations. By the act of 3d March last, Congress directed that no Board of Visiters should be selected, as had for many years been usual. To enable the Department to have correct information as to the discipline, course of studies, and general state and condition of the Institution, on the 24th May last, I detailed the following officers of the army to compose a Board of Inspection of that Institution for the present year, to wit: Major General Scott, Brevet Brigadier General Brooke, Colonel Bankhead, Captains Mordecai, W. H. Swift, H. Brewerton, L. J. Beall, J. C. Casey, and W. G. Freeman. This Board assembled at West Point, agreeably to instructions, on the 5th day of June, and attended throughout the examination of the classes, and inspected the Institution thoroughly. The performance of these duties occupied a period of eighteen days, during a portion of which the head of the War Department attended in person.

Whilst I fully concur in the importance of continuing the practical instruction in Artillery, Ca-

valry, and Infantry operations, I also recommend that the views of the Colonel in charge of the Bureau of Engineers, in relation to the proposed corps of sappers and miners, be carried out, for the reasons which he has so forcibly set forth.

In addition to the estimates for the Military Academy recommended by the chief of the corps of Engineers, I would ask that a small sum be added to the appropriation to enable the Professor of Civil and Military Engineering to visit and inspect the more recent and important works of our country which exhibit the best specimens of dams, locks, canals, bridges, dock, railroads, inclined planes, and other important machinery or mechanical improvements, in order that they may be fully explained to the Cadets as matters of instruction and improvement.

Speaking from personal observation, I must say that the Superintendent and the several Professors and Instructors deserve great commendation for the devotion they exhibit in governing the Institution, and educating the powers of mind of the youth committed to their charge; and that the general good conduct of the young gentlemen constituting the corps of Cadets, is creditable to them, and exhibits the best evidence of the high morality required of them. From every view I can take of the subject, I beg leave to recommend this institution to favorable notice, as in an eminent degree calculated to fit for service those on whom, in emergency, we must mainly rely to lead and instruct the troops required to defend our country and maintain its honor in the field. The estimates of this institution for the next year, it will be perceived, are $14,472 50 less than the appropriation of the previous year.

BUREAU OF TOPOGRAPHICAL ENGINEERS.

The report of the hief of the Bureau of Topographical Engineers, is one of great interest to the country at large, embracing as it does such a variety of subjects, and extending in its operations over the whole Union. The attention of the officers of this corps to their duties has been assiduous, and the results show the importance of their labors. Important and valuable as the general topographical work has been, the subject of the harbors on our Lakes, and the improvement of our western rivers will no doubt especially command the attention of the National Legislature, as not only connected with the safety of extensive commerce, but as essentially necessary to naval operations on the lakes in time of war. Great pains have been taken to ascertain the value of trade upon the lakes, which is exhibited in detail, as far as our imperfect means of information would furnish the facts. A trade which, two years since, was of the value of more than sixty-five millions of dollars, has been since rapidly increasing, and is probably now equal in amount to one hundred millions.

The commerce of the Mississippi and its tributaries is of immense value, and a continuance and extension of the system now in progress for removing obstructions in those streams, and improving their channels, is called for by every consideration of public policy, as due to the general interests of our western fellow-citizens. The amount of benefit conferred by the appropriations already made, is an earnest of what will be effected by continued, regular, and systematic efforts.

We have, as the report of the Chief of the Topographical Bureau states, "of nearly all our seaports, surveys of positions for fortifications, and of entrances by water into our several harbors, which will furnish, when desired, correct information on all those subjects." Knowledge, however, to the same extent, does not exist in regard to the lakes and lake harbors.

The recent extinction of the Indian title to the southern and western shores of lake Superior, and the value of those lands for their mineral wealth, will probably lead to the peopling of that region with great rapidity. Sound policy therefore dictates that means be promptly taken to make an uninterrupted navigation from that lake to lake Huron. This can be effected by the construction of a canal about a mile in length, through the lands of the United States, around the falls of St. Mary, with two locks suitable for passing steamboats, the expenses of which will not probably exceed $100,000. This will be more than made up by the increased value of the public lands affected by it.

By the commencement of Topographical surveys west of the Mississippi, it is thought that assurance has been given for their prosecution. The results, as far as ascertained, are highly satisfactory and creditable to the scientific gentlemen in charge of the respective works. It is hoped that the surveys already commenced on the Platte and Kansas rivers may be prosecuted, and that means may be furnished and authority given to construct a road through the lands belonging to the United States, so as to afford a safe and expeditious route for emigrants to the Oregon territory. This could be done at a moderate expense, as there would, generally, be little to do, more than survey and mark it out, and construct bridges over the larger streams. The survey should also embrace the proper positions for military posts, which will be found necessary for the purpose of keeping the Indians in order, preventing misconduct in traders among them, and furnishing security to travellers crossing the Rocky Mountains. At these military posts, settlements would soon be formed, and travellers, instead of encountering the troubles, inconveniences, and dangers of a long journey through a wilderness, would find themselves enjoying, on the whole route, the comforts and security of civilized life.

Reference is also made to the necessity of correct topographical information as to the country between our principal cities and the sea-board. This information should be obtained and put on record, to be used when necessary for the purposes of defence.

ORDNANCE BUREAU.

The report from the Ordnance Bureau shows that the officers connected with that Department have promptly accounted for the money placed in their hands. In the recommendations for arming our fortifications as their construction advances, and in

the necessity of a National foundery for the purpose at least of ascertaining with certainty where good material can be procured for cannon, I most heartily concur. Many of the cannon now in use, it is believed, would not stand a proper inspection, and are really dangerous even with ordinary charges. The loss and destruction of life by the bursting of cannon should be guarded against by every means in our power. The best metal should be selected, and be carefully manufactured into cannon at the public foundery. In this way only, it is believed, security would be afforded that the pieces could be safely relied on at all times. The establishment of a National foundery should not, it is conceived, be on a large scale, nor need it involve a considerable expenditure at the outset, but care should be taken to secure such a site as will enable the Government to increase it to any extent that may be required, should it be deemed advisable to extend it beyond the purposes of a test foundery. When the superiority of ores for the purpose is settled, the work could, if such a course be preferred, be let out by contract, at fair and legitimate prices, stipulating for the given quality of iron; the whole process to be superintended in all its stages by an Ordnance Officer, so as to secure an article as perfect as possible. There are, however, objections urgent against having cannon cast by individuals by contract, arising out of the interest of the contractor to increase the weight of the cannon, and to use the metal costing him the least money. Under any mode of constructing them, the most rigid scrutiny should be observed, to save the lives of those by whom they are to be used, and to render the cannon efficient for the purposes for which they were intended.

The state of our National Armories reflects credit on the officers placed in charge of them. I visited and inspected that in Springfield, in July last, and found it in excellent order. That at Harper's Ferry is also judiciously conducted, as I learn from the report of the Ordnance Bureau. That report exhibits in detail the amount of moneys expended at the armories for the manufacture of arms, for materials, and for repairs and improvements. The usual distribution of arms to the several States has been made in the past year, as shown in the report.

The value of the property under charge of this branch of the service is $17,393,021 07, and in itself shows the amount of pecuniary responsibility in which the officers who have it in charge are involved. The system of keeping and preserving the public arms, accoutrements, munitions, &c., with the arrangements of the accounts and the arsenals, so as to be easily and expeditiously inspected, are such as to entitle the head as well as the other officers of the corps to great credit.

The statements in regard to our lead mines are deeply interesting. Some legislation is undoubtedly necessary to prevent the numerous frauds attempted to be perpetrated in appropriating to individual use, at ordinary prices, lands known to abound with rich mineral. Something must either be done to effect the object, or the lands should be sold at adequate prices, if such could be obtained. The report of the Bureau on this subject at the last session of Congress, coupled with that of the present year, contains much valuable information, and exhibits to some extent the losses which the Government is continually sustaining, as well as some of the defects of the present system.

Measures were taken early in the present season to secure the rich mineral region south of Lake Superior from falling into the hands of intruders, who might endeavor, ultimately, to wrest from the Government those valuable lands, which, in addition to lead, are found to abound in copper ore of a superior quality. The results, as far as ascertained, have been satisfactory, and will be found more at length in the report of the Ordnance Bureau. When the full and final report for the year shall have been received from the agent, it can be furnished if desired.

The duties of the Ordnance Bureau are various and responsible, and have been increased by placing the mineral lands under its charge. It is respectfully suggested that the salary of the first clerk of this office be so regulated as to put him on a footing with the chief clerks of the other bureaus.

The estimates from the Bureaus of Engineers, Topographical Engineers, and Ordnance, are larger than those of the preceding year. The reason for this increase may need explanation. The chiefs of the bureaus, respectively, have estimated what, in their judgment, will be necessary to carry out those works for which provision has been made by law. If Congress shall not deem it advisable to prosecute all of them, the appropriations can be confined to those deemed of most pressing importance. Again: considerable portions of some of the estimates are for the reappropriation of sums heretofore appropriated, but which will revert to the Surplus Fund, by operation of law, at the close of the present calendar year.

INDIAN AFFAIRS.

The report of the Commissioner of Indian Affairs embraces in great detail the operations of that Department for the past year.

Our Indian relations have, in the main, been peaceable, and the exceptions growing out of a few individual acts of violence have not been sanctioned or justified by the tribes to which the offenders belonged.

The emigration of that portion of the Choctaws east of the Mississippi has not yet been effected; but it is hoped and believed that it will commence early in the spring, and continue until the most of them be removed. The Department has been assiduously at work endeavoring to effect this object, and thus relieve the State of Mississippi from a population undesirable, and which will be much better off when located among their own kindred and people now residing west of the Mississippi.

The constant instruction to the agents and subagents, which it is believed they are endeavoring to carry out, has been to endeavor to bring the influences of Christianity and civilization to bear upon them—to induce them to settle down permanently to the cultivation of the soil, and thus become domesticated, as it were, on their own territories.

Many of the Southwestern Indians, especially among the Cherokees and Choctaws, have made considerable advances in civilization, and are accustoming themselves to husbandry and planting, surrounding themselves with the comforts of civilized life, and are taking great pains in the education of their children. The Choctaws, early in the present year, appropriated eighteen thousand dollars of their annuities to education purposes.

The annuities paid to many of the tribes seem to do them little good. So long as they are sure of receiving their annual stipend, they will not exert themselves as they should to earn a subsistence, and in most instances the traders get the money of the Indian, either in payment of debts incurred in anticipation of the annuity, or for goods brought to him and sold when the annuities are paid. The Indian rarely receives the value of his money, which thus fails of its object, to provide for the necessities of the red man. A revision of the whole system may probably result in some better means than any yet discovered, to prevent the bounty of the Government from being misappropriated, and the poor Indian from squandering his money on objects of trivial importance. Some further legislative provision is necessary, effectually to prevent all persons from introducing ardent spirits among or disposing of them to the Indians under any pretext whatever.

The compensation allowed to sub-agents is entirely disproportionate to the responsibilities incurred and duties required of them. They are obliged to give security in amounts varying from $5,000 to $20,000, to reside out of the reach of civiliation, to be often exposed to danger and trouble, and for all this they receive but $750 per year. The compensation ought to be increased to at least $1,000, and in some situations a discretionary power should be given to increase it to $1,250, which would probably enable the Department to secure the services of men better qualified for the work than can ordinarily be obtained for the small allowance now given them. It might also be advisable to give authority, where the proceeding would be proper, to consolidate two or more contiguous sub-agencies into a full agency.

During the recess of Congress, I directed a commencement to be made of a history of all the Indian tribes, so far as the same could be derived from documents in this Department. Some progress has been made in it, but it is found that it will have to be suspended during the approaching session of Congress for want of the necessary force to put upon it. It is a work very much needed, and will, if properly completed, be very valuable.

It is important, most effectually to prevent abuses, and to see that the Indians are fairly dealt with, that the Department should have the means of obtaining more direct and official information of the actual state and condition of the several tribes of Indians, and the manner in which the agencies and sub-agencies are conducted, than can now be had. For this purpose I would respectfully suggest such a modification of so much of the act of 26th August, 1842, as provides, "That it shall not, at any time hereafter, be lawful for any accounting or disbursing officer of the Government to allow or pay any account or charge whatever, growing out of, or in any way connected with, any commission or inquiry, except courts martial or courts of inquiry in the naval or military service of the United States, until special appropriations shall have been made by law to pay such accounts and charges," &c., as to exclude from its operation the office of Indian Affairs, so far at least as to permit the payment of a reasonable compensation to a person or persons to be appointed to make personal inspections and examinations into Indian affairs. It is believed that such inspections and examinations would correct many abuses, and be an actual saving to the Government.

PENSION OFFICE.

The report of the Commissioner of Pensions, exhibits very clearly and distinctly the state and condition of the business of this office. There yet remain on the rolls 21,064 pensioners for revolutionary services, including widows. Under the act of 1838, granting pensions for five years to widows of revolutionary soldiers, 9,895 claims have been presented, of which 7,855 have been admitted. Under the laws granting pensions to invalids for wounds and injuries received in military service, there are now on the rolls 2,720 persons.

The force employed in the office of the Commissioner of Pensions had been considerably reduced, as the business decreased prior to the present year. The act of 3d March last, extending the acts granting pensions to widows, has greatly increased the business of that office, whilst the appropriation of the present year required the discharge of one clerk. The Commissioner and remaining clerk have been unable, with the utmost diligence and industry, to dispose of the business presented to them. An appropriation of about $2,000 will be requisite for the employment of additional aid, temporarily at least, or they will be unable to perform the business entrusted to them within a reasonable time. It is not right that the legitimate objects of public gratitude should be deprived of the provision made for them by law, for want of means to have their claims examined.

The balances in the hands of Pension Agents appear large. The returns, however, were made at a time shortly after that at which sums had been remitted for the semi-annual payments falling due in September last. Before this time the balances have no doubt, been considerably reduced.

I think the present system of paying pensions is not the best which could be devised. The act of 3d March, 1837, provided that no compensation or allowance shall be made to any persons or corporations for making such payments, without authority of law. This provision has compelled the Department to employ either banks or officers of banks in most instances, as the agents. The actual expenses incurred by them in transacting the business are paid, and it has in many instances been necessary to compensate them indirectly, in order to get the business transacted. This could only be done by keeping considerable balances on deposite in the Bank with which the agent is connected, and thus, when depo-

sites are an object, granting a much larger compensation than would be required to pay a person especially for transacting the business. I respectfully suggest an alteration of the law in this particular.

It will be observed that the estimates for the Pension Office are larger for the coming fiscal year than they were for the present. This has been rendered necessary by the act of 3d March last, extending the act granting pensions to widows, &c.

UNSETTLED ACCOUNTS.

Since the last annual report there has been a considerable reduction in the number of unsettled accounts in the offices of the 2d and 3d Auditors. In the former office there are two hundred and eighty-two accounts remaining unsettled, all presented within the present year, making a reduction of five hundred and ninety. In the latter there are nine hundred and forty-five accounts remaining unsettled, of which one hundred and sixty-eight were presented in 1841—three hundred and seventy-five in 1842, and four hundred and two in 1843; the reduction being five hundred and thirty-four. Justice to persons having claims against the Government or accounts to settle with it, requires that means should be provided for the more prompt settlement of their accounts. The officers named are using all the means which they now possess, with a praiseworthy diligence, but they are insufficient to accomplish the object.

Considering the relations in which the offices of 2d and 3d Auditors stand to the War Department, their position is anomalous. They transact the business of this Department, and in all matters depending upon equitable discretion, refer to and are governed by the decisions of the Secretary of War. From his position, he must be best capable of judging of the manner in which they should be organized and the business conducted in them. Yet, as to these, they are entirely under the control of another Department of the Government. It would be more systematic to make them branches of this Department, leaving the 2d Comptroller, an officer of the Treasury, to decide, ultimately, as he now does, upon the business transacted by them.

BUILDINGS.

The building at present occupied as the Department of War, is insufficient for the purpose, and does not possess the security of being fire-proof. It only accommodates the War Department proper, the Commanding General, Adjutant General, Quartermaster General, Commissioner of Indian Affairs, and 2d Auditor. The business of seven important bureaus of the Department, to wit: of the Paymaster General, Surgeon General, Engineers, Topographical Engineers, Ordnance, Commissary General of Subsistence, and Commissioner of Pensions, is transacted, and their records kept, in rented buildings, separated from the public edifice, and still more insecure than it. The safety of the public records, and convenience in the transaction of business, require that a secure building should be erected sufficiently large to accommodate the entire business of the Department. This subject has been repeatedly brought to notice, thus far, without effect. It is again brought to view under the hope that the remedy of these evils may not be further postponed.

I take this opportunity to state that I have been greatly aided in performing the labors of the office I hold, by the Commanding General, and the heads of the several bureaus of the Department, whose assiduity and promptness in their attention to business deserve all praise.

J. M. PORTER,
Secretary of War.

To the President.

The Second Regiment of Dragoons.—We are gratified to see the editorial corps manifest such a desire to remount this crack regiment. If the necessity, expediency and policy of the act, are not grounds to justify it, a debt of gratitude which we owe that gallant Regiment for their active and efficient service during the Florida war, demands that it should be restored to that rank, of which they have been shorn. The Memphis Enquirer, that invaluable paper to the interests of this frontier, and to the Army, says: "At the last Congress this regiment was dismounted, and organized, we believe, as rifle infantry. A strong effort will be made at the approaching session to remount them. Most earnestly do we hope it may be successful. For the purposes of frontier protection on the peace establishment they are certainly far more efficient than either infantry or artillery. A single regiment of dragoons, moving with celerity on the borders of the Indian country—making their appearance unexpectedly in several detachments at different points—will go further to overawe our savage neighbors than the building of half a dozen forts. For the purpose of suppressing insurrections, either servile or savage, they are the very best troops which could be organized. There is at present but one mounted regiment in the whole army. We sincerely hope the second regiment will be remounted."—*Arkansas Intelligencer.*

That Gun.—The great gun completing under the direction of Capt. Stockton of the Navy, is the subject of considerable discussion and speculation, and it is supposed by scientific persons, that it may change altogether the system of naval warfare. Manufacturing a cannon from wrought iron is a novel event. It is said the very best pieces of metal and choicest scraps of iron have been melted for this purpose, and after the gun is forged and bored and turned, it is bound round with triple hoops of iron welded and neatly turned, and the surface smoothed. The gun is not of the mammoth proportions, as many believe, and is easily worked; the merit of the improvement consists in the tremendous ball used, and the immense distance it is carried. Three kegs of gunpowder to a single charge, and a ball carried to the distance of three miles, places opposition at defiance, and renders a navy almost useless. A steamship armed with such a gun, can take position out of the reach of a seventy-four and tear her all to pieces in a few discharges. The success of this experiment will produce quite a sensation abroad.—*N. Y. Sun.*

WASHINGTON.

THURSDAY, DECEMBER 14, 1843.

A WORD IN SEASON.

To OUR SUBSCRIBERS.—The year is drawing to a close. Your second volume is nearly finished. Our labors for the year are before you. Judge for yourselves whether they be worthy of your continued support. If so, remit at once the amount of a renewed subscription, and as many additional ones as you can obtain; if not, send at once a notice of discontinuance. Punctuality is the life of business, and a growing subscription is the life of a paper.

To those of our subscribers who have not paid for the current year.—Shall the year close, and your subscription be unpaid? Of which one shall it be said he was the *last* to pay? Your band is small, neither is it honorable. Let it then be dissolved. Leave it and join that worthier number, for whom, their subscription renewed, the amount paid, no discount, no postage, grumblings few, we can, with a cheerful heart, make renewed efforts to increase the value of the paper.

A hint to those who forget to pay the postage.—When you notify us of a change of residence, pay the postage; when you send a notice of your marriage for insertion, pay the postage; when you write that you are not able to pay your subscription, but soon will be, pay the postage; when you enclose a note at ten or fifteen per cent. discount, pay the postage;—in all cases, be very sure to pay the postage, or send your letters free.

A word to all.—What amount of effort is each one willing to make in behalf of the Chronicle? A little? a very little? It is all we ask. A little individual effort by many individuals is all that is necessary greatly to improve the Chronicle, and to establish its permanency.

COMPLIMENT TO CAPTAIN STOCKTON.—A number of citizens of Philadelphia have expressed to Captain R. F. STOCKTON, U. S. N., their admiration of "the highly successful experiment exhibited in the performance of the beautiful Steamer Princeton, and the practical results which have followed the trial of his heavy ordnance," and tendered to him the compliment of a public dinner.

Captain Stockton, in reply, states that he "cannot wholly decline the invitation, but must beg leave to postpone designating the time until the guns are taken on board the Princeton, and until an opportunity occurs of making some experiments in the presence of Committees from the Philosophical Society and Franklin Institute."

DEATH OF CAPT. ELIJAH LYON, U. S. A.

At a meeting of the Officers of the 3d Regiment of Artillery, the Medical and Quartermaster's Staff, stationed at Regimental Headquarters, Fort Moultrie, S. Carolina, Brigadier General ARMISTEAD was appointed Chairman, and Lieutenant BRAGG Secretary. A committee, composed of Gen. ARMISTEAD, Capt. KEYES, and Lieut. BRAGG, selected to draft resolutions, presented the following, which were unanimously adopted:

Resolved, That the officers of this post have learned with deep regret the death of Captain ELIJAH LYON, late of the 3d Regiment of Artillery. In that officer the Army has lost one who, while in health, was always at his post, and ever prompt and faithful in the discharge of his duties; one whose integrity was without spot, and whose uncommon benevolence and social disposition won for him the uniform esteem and respect of all who knew him.

Having served his country in various climates, in war and peace, for nearly thirty years, his constitution at last gave way under the fatigues and exposures, incident to service in Florida, which left him a victim to diseases that for more than five years made him miserable, and at length, on the 19th of November, 1843, destroyed his life. The respect which his brother officers entertained for the character of Captain LYON, as an officer and a man, has been heightened into admiration by the fortitude he displayed under sufferings entailed upon him by his military services.

Resolved, That in token of regard to the memory of the deceased, we will wear the usual badge of mourning for thirty days.

Resolved, That the proceedings of this meeting be published in the Army and Navy Chronicle, and that copies of the same be sent to the nearest relatives of the deceased.

W. K. ARMISTEAD, *Brig. General Comd'g 8th Military Dept.*
H. S. HAWKINS, *Surgeon U. S. A.*
MARTIN BURKE, *Capt. 3d Artil'y.*
A. C. MYERS, *Capt. & A. Q. M.*
E. D. KEYES, *Capt. 3d Art'y.*
MORRIS S. MILLER, *1st Lt. 3d Ar.*
T. W. SHERMAN, *1st Lt. 3d Art'y.*
BRAXTON BRAGG, *1st Lt. 3d Art'y.*
W. A. BROWN, *1st Lt. & Adj't 3d Ar.*
HENRY B. JUDD. *1st Lt. 3d Art'y.*
S. VAN VLIET, *1st Lt. 3d Art'y.*
W. H CHURCHILL, *1st Lt. 3d Ar.*
GEO. W. AYRES, *2d Lt. 3d Art'y.*
JOHN F. REYNOLDS, *2d Lt. 3d Ar.*

GEN. GAINES.—A resolution has passed the Senate of Tennessee, by a vote of 19 to 4, instructing the Senators and requesting the Representatives to procure the passage of a law to restore Gen. E. P. GAINES to the rank and emoluments he enjoyed previously to the issue of the Army order No. 40.

STANDING COMMITTEES OF THE SENATE.

On Military Affairs.—Messrs. Crittenden, Barrow, Benton, Dayton, Foster.

On Militia.—Messrs. Barrow, Fulton, Sample, Fairfield, Atchison.

On Naval Affairs.—Messrs. Bayard, Choate, Huger, Haywood, Henderson.

On Revolutionary Claims.—Messrs. Farnagan, Clayton, Upman, Colquitt, Hannegan.

On Pensions.—Messrs. Bates, Sevier, Foster, Evans, Atherton.

STANDING COMMITTEES OF THE HOUSE OF REPRESENTATIVES.

Revolutionary Claims.—Messrs. R. D. Davis, Arrington, D. P. King, Lucas, Stone, Stetson, Brodhead, Robert Smith, Senter.

Revolutionary Pensions.—Messrs. Rathbun, Steenrod, Rodney, Simons, Hungerford, Giddings, Joseph A. Wright, Hoge, McIlvaine.

Military Affairs.—Messrs. Haralson, Coles, Irvin, Boyd, McConnell, Hardin, Bossier, McDowell, Fish.

Militia.—Messrs. Dean, J. Stewart, Moseley, Tibbatts, Moore, Foot, Bower, Hays, Frick.

Naval Affairs.—Messrs. Wise, Parmenter, Barringer, Murphy, Simpson, Peyton, T. H. Seymour, Atkinson, Marsh.

Invalid Pensions.—Messrs. Jacob Brinkerhoff, Russell, Ashe, Joseph Morris, Robert Smith, Albert Smith, Nes, Cullom, Tilden.

Expenditures in the War Department.—Messrs. McIlvaine, Kennedy, Arrington, Grider, A. Johnson.

Expenditures in the Navy Department.—Messrs. Dana, Kirkpatrick, Vanmeter, Buffington, Senter.

Coast Survey.—We learn that the Secretary of the Treasury, within whose supervision the Coast Survey falls, took immediate measures upon the death of Mr. Hassler, the late Superintendent, to prevent the slightest interruption to the operations of that most important work. Mr. James Ferguson, a gentleman of eminent science, who has been principal assistant in the survey from its organization in 1832 to the present time, and of undoubted qualifications combined with great practical experience, repaired immediately, by order of the Secretary, to the last station of Mr. Hassler, and is now proceeding with the observations.—*N. Y. American.*

The Coast Survey.—That part of the coast survey which relates to the river Delaware, and which was given in charge to Lieutenant Brake, U. S. N., is now being brought to a close by that gentleman, and the corps under his command. The survey of the river, both above and below the city, being completed, that part fronting the city alone remains, and the duty will be finally accomplished in a few days. The present position of the survey will account for the numerous signal flags fluttering upon the wharves and the opposite shore.—*Phila. U. S. Gaz.*

U. S. Ship Delaware.—We have a private letter from on board this ship, dated at Port Mahon, September 24th, where she had remained a week. Upon leaving Mahon the last time, the ship proceeded direct to Marseilles, from thence to Toulon, and thence to Genoa. After remaining at Genoa a short time, during which the vessel was crowded with company, calling forth high commendations by her appearance, she proceeded to Spezzia, the place chosen as a Naval Depot on that station. At Leghorn she unfortunately got aground, but by the active exertions of her officers and crew the main deck and spar deck, guns, and other heavy articles being taken out, she was got off without material damage. From Leghorn she again proceeded to Naples, and was also to return from Port Mahon to that place, from whence she is expected home.—*N. Y. Sun.*

The Missouri.—The handsome and fast sailing barque Pons, Captain Graham, arrived at this port yesterday, after performing a circuitous trading and freighting voyage up the Mediterranean. She is last from Gibraltar, and has on board the anchors, chains, cables, and other materials saved from the wreck of that noble but ill fated steam frigate Missouri. The Pons has also brought as passengers, Lieutenant Blunt, Midshipman Pringle, Dr. McLanahan, Engineer Davis, and twenty eight seamen, all lately attached to the Missouri. The American Consul has advertised in the Gibraltar papers, for proposals to raise from the wreck her armament and machinery in a given time; and Captain Newton, with other officers and a few of the crew, remain behind to attend to the preservation of the property.—*Phil. U. S. Gazette.*

Fort Washita, Choctaw Nation.—This Post is located upon Red River, in the Chickasaw District, Choctaw Nation, at one of the most important points on our frontier. It is at the extreme part of the settlements of the Choctaws and Chickasaws, immediately on the line of Texas; and in the part of our country most accessible to the predatory bands of wild Indians, Camanches, Kiowas, &c. Since the establishment of this Post, there has been but one outrage upon our citizens, or the Indians in amity with us, and that was of an unimportant nature. However, the perpetrators of it made their escape in consequence of being *mounted*, whilst our troops were *upon foot*.

The post is garrisoned by four companies. Br't Col. W. S. Harney, U. S. R. R. Comd'g Post.

The troops have been actively engaged in erecting barracks, and other quarters, during the whole summer, and have completed good and substantial quarters for four companies, which are now occupied. This Post has been established for upwards of eighteen months, and not a death has occurred during the time; and with but little expense, comparatively speaking, to the Government—the labor having been performed, principally, by the troops.—*Ark. Int.*

Effect of Musketry in Battle.—About a century ago, a British General, named, I think, Gray, asserted in a military treatise, that only one musket-shot out of four hundred took fatal effect in battle. This, at first view, seems absolutely incredible, but a regular investigation shows that he calculated judiciously. A battle is accounted very bloody where an army suffers a loss of one-fourth. At Vittoria, where Wellington, according to Napier, had 100,000, he lost 6000, which was only about a seventeenth, and the French, with 120,000, though defeated, lost no more, which was but a twentieth. Ligny, though not much spoken of, was perhaps the most sanguinary European battle in modern times; for Blucher lost one-fourth of his force in the field; and so deadly was the mutual exasperation, that no mention is made of prisoners! Bonaparte, who could be hardly said to have gained a victory, since Blucher's main object was retreat, lost at least a fifth. At Waterloo, which is always classed as unusually severe, Wellington, if my memory serves right, lost about a fifth of the army under his immediate command. The French loss cannot be fairly mentioned here, for when an army flies in confusion, it is little superior to a panic-struck mob, and the carnage in the pursuit, added to that in the battle itself, must be immense.

Suppose now two hostile armies, of 12,000 muskets respectively, besides the officers, or non-firers, and some Cavalry and Artillerymen; and that one is defeated, after a contest of six or seven hours, with the heavy loss of 3000. We will suppose that the victorious side fires only thirty rounds, which low average is given to allow for the killed or disabled early, or in course of the battle. That would amount to 360,000 shots, and we are to recollect that "loss" includes wounded and missing; so that the killed are seldom more than a fourth, but we shall here set them down as 1000, which would be nearly a third. That would come very close to the General's calculations, but we must keep in mind that battles are not fought without Cavalry and Artillery, and that they had a good share in killing the 1000. Thus we find that, with all our improvements, the old General's estimate holds good to the present day, and is rather an underrating than an exaggeration.

Why so small a proportion of musket-shots *tell* effectively in battle would be both a curious and useful subject for investigation.—*United Service Mag.*

Military Improvements.—Drill.—In reading the various published accounts of the Affghan campaign, and private letters, and also the account of the late actions in Sinde, one is struck by the mention of the useless way in which our troops wasted their fire without taking any aim; and in the actions near Hydrabad, it was foune difficult to stop the fire of our men, to enable the cavalry to pass to the front and charge the enemy.

I attribute this waste of ammunition and useless fire, to our Generals and Commanding Officers of regiments, when on drill, placing more stress on a regiment's firing simultaneously when in line, than to their bringing their muskets to a proper level, and taking aim at an object. The soldier's attention is directed to the word of command, and to pulling the trigger at the same instant, and he takes no aim whatever; and is thus taught to depend rather on the noise and smoke he can make for his preservation, than to the effect of his fire, in the destruction of his enemy.

If the Commanding Officers of corps were to direct the attention of their men to bringing their muskets to a proper level, and to taking aim, rather than to firing simultaneously, it is probable that they would acquire the habit of taking aim on all occasions, as well as in action. Officers commanding companies may be directed to chalk three lines on the walls of the barracks, one at the level of 4 feet 6 inches from the ground, to represent the height of men's shoulders; another at the height of 3 feet, to represent the lower part of their bodies; and another at 1 foot 6 inches, to represent their knee-joints; and the men may be directed to level their muskets at these lines, when advancing and retreating from the wall; and the officer commanding might give the caution, as, "Upper line, fire;" "Middle line, fire;" "Lower line, fire." He should be indifferent as to the men's firing at the same instant, but very particular respecting his men bringing their muskets to the level of the different lines. There should be no hurry; and as firing with a steady aim is of much more consequence than quick firing, the men's attention should be directed accordingly.

It may be useful to practise their men to fire by alternate files, and to accustom the covering files to load for their front ranks, and to passing their loaded muskets for the purpose of being discharged. The men, when firing by alternate files, might be directed to step one pace in front, discharge their muskets, retrace their step, take the loaded musket from their covering files, whilst their files to their right and left fire, and repeat the operation. All that would be required, would be to tell off the men into right and left files, and for Commanding Officers of companies to give the caution, "Right and left files, prepare to fire;" Right files, fire;" "Left files, fire;" and to repeat these words so long as the fire is to be continued, taking care not to hurry the men, and always to caution them to fire at the proper level, according to the supposed distance of the enemy.

If my communication may not be deemed too lengthy, I shall, now that I am on the subject of training the soldier, observe, that societies are forming throughout the country for training schoolmasters, and that it may be well to train schoolmasters for our regimental schools. In the French service, much attention is paid to this subject, as well as in the Prussian service; and many privates qualify at these schools for the higher grades of their profession. In most of their regiments, an officer who studied with credit, and qualified at their military colleges, superintends the instruction at the regimental school. We may, in our Service, furnish good schoolmasters to every regiment, without incurring any additional expense. We have only to make over to each regiment one or two well-instructed Sappers and Miners from the establishment at Chatham, to perform the

duty of schoolmaster, with the rank and pay of a non-commissioned officer; and as an encouragement to the young men educating at Sandhurst, to qualify for the Service, one individual may be selected from those who highly distinguish themselves, for a commission in each regiment, with the understanding that they take on themselves the superintendence of the regimental school, in consideration of receiving their commission gratis, and under a promise of receiving the rank of a Lieutenant, after serving three years, and a company after serving five years, when another individual should be nominated to perform the duty. Under such a system, every regiment in the Service would have one highly talented commissioned officer to superintend its regimental school, and one or two well-trained non-commissioned officers to instruct the privates in their military duties.

No one who has read the accounts of the fate of our Army at Cabool, under the command of General Elphinstone, with attention, and who has had the benefit of a good military education, but must have been struck with the great want of able officers to take advantage of the localities of the ground around the encampment, and to perform the duties of the Staff, and superintend the works. All these duties devolved upon that brave, zealous officer, Lieutenant Sturt, of the Engineers, who, when wounded, and unable to walk, was obliged to have himself carried round the work in a litter to give his directions, there being no officer of sufficient experience and military education to aid him in his duties of an engineer.

Under the system I propose, if adopted, no regiment in the Service will be without a well-educated Engineer officer, and without many privates capable of marking out military works, and superintending their construction, and of taking advantage of ground, which the locality of places may offer.—*United Service Magazine.*

The North Eastern Boundary.—The survey and demarcation of the boundary between the United States and the British provinces of New Brunswick and Canada, as defined by the treaty of Washington, have been advanced the past season with much industry and with much success.

The commissioners, and the scientific corps, on the part of both Governments, (the latter composed chiefly of mititary engineers, of the two services, who are graduates of the national military schools of West Point and Woolwich,) have co-operated, in the task committed to them, with great harmony. No controversy nor misunderstanding of any moment, has arisen as to the line described in the treaty, and it is not at all probable that doubt or difference of opinion can arise in the minds of the commissioners, respecting the remainder of the line to be marked. The whole is clearly defined by the treaty, and both countries are represented, in their commissioners, by intelligent, frank, and liberal minded gentlemen, who are above any petty cavil in the discharge of their important duties.

The boundary has already been surveyed and marked, in such a way as to define the limits of jurisdiction of the respective Governments, from the monument at the source of the river St. Croix, to the outlet of Lake Pokenagamook, on the river St. Francis. No dispute or collision, as to right of jurisdiction can, therefore, hereafter arise, upon this important portion of our frontier. It embraces the whole of the Madawaska settlement, which is by far the most populous portion of the line, until it reaches the frontiers of Vermont and New York. Monuments of cast iron have been erected along the greater portion of the meridian line, at the distance of one mile apart, and the whole of that line will be thus marked before the close of this season's operations.

The termini of the straight line between the outlet of Lake Pohenagamook, and the northwest branch of the St. John, have been determined astronomically, in latitude and longitude, and the greater part of the river St. John, above the mouth of the St. Francis, has also been accurately surveyed.

The astronomical operations were still, however, going on, north of the 47° of latitude, as late as the 5th of November, notwithstanding the country was at that time covered with snow, nearly a foot deep. These operations are conducted, on the part of the United States, by Major Graham, of the United States corps of Topographical Engineers, assisted by Lieutenant Mead, of the same corps; and on the part of Great Britain, by Captain Robinson and Lieutenant Pipon, of the corps of Royal Engineers. The labors of these gentlemen will probably close, for the present season, by the middle of November.

The organization of the joint commission is as follows, viz:

On the part of the United States.

Hon. Albert Smith, of Maine, Commissioner.

Edw. Webster, Esq., of Massachusetts, Secretary.

Jonathan Smith, Esq., of Maine, Commissary.

Scientific Corps.

Major James D. Graham, of the Corps of Topographical Engineers, Principal Astronomer and head of the Scientific corps, on the part of the United States.

Captain J. E. Johnston, Corps of Topographical Engineers.

1st Lieutenant Thomas J. Lee, Corps of Topographical Engineers.

2d Lieutenant George Thom, Corps of Topographical Engineers.

2d Lieutenant George G. Meade, Corps of Topographical Engineers.

1st Lieutenant William H. French, one sergeant, one corporal, and fifteen privates, 1st regiment United States Artillery, acting as sappers.

F. T. Lally, Esq., of Maine, Civil Engineer.

A. W. Longfellow, of Maine, Assistant Civil Engineer.

J. F. Anderson, of Maine, Assistant Civil Engineer.

On the part of Great Britain.

Lieutenant Colonel J. B. Bucknall Estcourt, of the British Army, Commissioner.

J. Scott, Esq., of England, Secretary and Draftsman.

——— Huyghue, Esq., of St. John, N. B., Commissary.

Charles J. Wolhaupter, Esq., of Fredericktou, Commissary.

Scientific Corps.

Captain J. D. Broughton, Corps of Royal Engineers.

Captain William R. Robinson, Corps of Royal Engineers.

Lieutenant J. H. Pipon, Corps of Royal Engineers, with eight non-commissioned officers of the Royal Corps of Sappers, as assistants.

J. D. Featherstonhaugh, Esq., of England, Civil Engineer.

——— Wilkinson, Esq., of Fredericktou, Civil Engineer.—*Boston Courier.*

STEVENS' WAR STEAMER.—On page 695 we copied from the New York Sun, a notice of a floating battery now in the course of construction in New York harbor. In connection with this we insert, for future reference, the following letter from its constructor, dated Washington, January 25, 1842:

General description of a Steam Battery, or Vessel of War proposed to be built for the Government of the United States, by Robert L. Stevens, for the defence of the harbor of New York.

The steam battery, or vessel above referred to, is to be constructed upon a plan entirely new, invented by the writer, and is to be shot and shell proof; she is to have greater speed than any vessel of war now afloat; the engines and propelling apparatus are to be so placed that the latter shall be submerged, and the whole engine out of the way of shot from the vessel of an enemy. Her guns are to be large, and adapted both to shot and shells; her burden not to be less than 1,500 tons.

The practicability of rendering such a vessel proof against shot and shells, is not a theoretical assumption, but has been proved by the test of positive experiments. These experiments were recently made at Sandy Hook, under the superintendence of Messrs. John C. and Edwin A. Stevens, and in the presence of a joint board of army and navy officers, appointed by the Government. From their result, no doubt whatever remains of the fact, that a series of wrought iron boiler plates, riveted together and placed upon each other, until the strata amount to four and a half inches in thickness, will effectually resist the force of 64 lb. shot, when fired with battering charges, at the distance of thirty yards. Fifteen or twenty shot were also fired at this distance, and from guns of different calibres, against a target thus constructed, and were made to strike against it within a space of about two feet by four; and these produced so little effect as to leave it in a fit state to protect any thing in its rear against a similar force. Shells fired from the same distance, scarcely indented the iron, and both shot and shells were invariably broken into small fragments.

The above named experiments were tried under the supervision of the officers of the army and navy. At the last of these, the writer, who had just returned from Europe, was present, and trials were then made upon the effect of shells of a peculiar construction, which were prepared by him. These shells are hermetically sealed, and are effectually secured from accidental explosion, either from fire or violent concussion; they are perfectly safe, also, from injury by submersion in water. They are so constructed as to explode after having penetrated the object against which they are discharged; and, being elongated, contain three times as much powder as the common shell of the same calibre; they do not require the use of mortars, but may be fired from the guns in ordinary use. Out of twenty of these shells which were discharged into timber, or into banks of sand, nineteen exploded in the manner anticipated, rendering their action sufficiently certain, and evincing the possession of properties not possessed by any other shell, and producing effects which were actually tremendous.

It will be manifest that a steam vessel, or battery, fortified in the manner above described, and furnished with the means of rapid propulsion, would be able to approach an adversary's vessel so securely and so closely, as to render it nearly impossible to miss her with shells fired horizontally; and it does appear that a vessel possessing the properties above enumerated, would be able to attack and destroy any fleet of steamers, or of sailing ships, as now constructed, which might be sent to attack a city or to blockade a port. The part of such a vessel through which the guns are fired, having a thickness of four or five inches only, might have port-holes but little larger than the muzzle of a gun, and yet allow it to be fired at any desired angle. These port-holes may be readily protected from cannister, grape, or other shot, by means of moveable screens, so constructed as to be removed and replaced with facility.

A single shell of large dimensions, and of the kind prepared by the writer, will suffice to sink the stoutest wooden vessel, if exploded within her sides, any where near the water line. The effect of such a shell upon a structure of wood was fully tested, under his superintendence, upon Governor's Island, in the harbor of New York, upward of twenty years ago. The experiments were made by order of the Government, in the presence of the late Col. House, and several other officers, with the following result: A target of white oak was constructed in the strongest manner, by one of the best ship builders; it measured five feet in thickness, and the timbers were secured together by iron screw bolts passing entirely through the whole. This target was perforated by the explosion of a single shell, a hole being made in it through which a horse might have passed. Seven timbers of white oak, each measuring 12 by 16 inches, were torn into shreds and scattered to a great distance.

The foregoing plan of constructing and arming a vessel, with most of its details, has been matured for many years, and the delay in bringing it forward has resulted from a conviction that a period more favorable to its adoption than any that has heretofore occurred, would arrive; and it is believed that it has now actually arrived. The advantage of being the first to construct a vessel of this description, would be very great, as it must render us secure for a long

time against the vessels of war of other nations, as these would be required to be built anew. As a means of defence, it would be cheaper than any other; and in time of peace such a vessel would suffer but little from the ravages of time, and but few hands would be required to keep her in a proper condition for use. Her ventilation would be artificial, and constantly and thoroughly applied. In actual service, her crew, of all grades, would not, probably, exceed one hundred and fifty; she would need no rigging; with anthracite as fuel, she would not be rendered visible either by smoke or by sparks, and would, therefore, attract the notice of an enemy less, either by night or by day, than any other vessel.

Although a vessel, or battery, of the kind described, is equally adapted to the protection of all our ports, the harbor of New York will probably be considered as one of those the best fitted to a first experiment with it, if experiment it may be called. Its spaciousness, its great depth, and its vicinity to fresh water, which will render it easy at any time to free the bottom of the vessel from barnacles, concur in pointing it out as a suitable place for the purpose.

The knowledge of the existence of such a vessel, would suffice to deter most commanders from risking an attack with a vessel of wood, where the chances were so decidedly against them.

ROBERT L. STEVENS.

SUSPENSION BRIDGES.

The Suspension Bridge is not a recent invention. It is hardly to be doubted that it was used, in its simplest form, at as early periods as any other species of construction which has called into exercise the mechanical ingenuity of men. And without adopting the fanciful idea of a modern writer, that the first efforts of the kind were in imitation of the spider, it is easy to perceive that a precarious passage might be obtained by stretching a grape vine across a ravine, and securing its extremities to the limbs of trees on the opposite banks, by the exercise of no greater sagacity than might be attributed to our own species, even in its most primitive condition.

Among the earliest, and consequently the rudest attempts in this department of architecture, of which we have any authentic information, are those bridges described by M. Humboldt, Don Ulloa, and other writers, by means of which the gorges in the passes of the Cordilleras in Peru, and some of the mountain torrents of India, are traversed by the natives of those countries. Suspension bridges of considerable importance are there sustained by cables formed of twisted roots supporting a flooring of bamboo.

These structures are frail, and the footing which they offer is unsteady, of course. But great as may seem the contrast between these rude attempts of an unlettered people and the more recent efforts of European Engineers in the same department, it is not greater than may be observed in every other branch of practical science. The passage from the earliest Egyptian lintel to the arches of Rennie in England and Perronet in France—from the hut of the savage to the dome of St. Peters or the Pantheon—might probably call for equal admiration.

The extent of the improvement in the particular branch of architecture under consideration, is less surprising than the fact, that the application of the principle on which it rests should have been so long confined to remote and uncivilized countries.

It is only within the last forty years that the subject has at all commanded the attention of practical men. Some successful attempts, on a moderate scale, were made in the United States about the year 1806; but having been executed on a very economical plan, and before the laws of equilibrium of such structures were properly exposed by the investigations of modern engineers, these specimens offered no inducements for the extension of the system, and it has since fallen into neglect, if not disrepute.

The example offered by these early efforts in this country, was not, however, altogether lost. It is even probable that to the partial success of these attempts is due the design of the famous bridge across the Strait of Menai, between Wales and the Island of Anglesea; the accomplishment of which great work was the signal of the rapid extension of the system throughout England, and its introduction into almost every state of Europe. The width of the strait, at the point where this structure was to be erected, was 1,000 feet; the depth of the water at high tide was 48 feet; and an indispensable condition, to be satisfied by the plan, required that the edifice should offer no obstruction to the shipping navigating the channel.

Stone arches were out of the question, both because the depth of the water rendered the construction of piers almost impracticable, and no span could be attempted wide enough to permit the safe passage of a ship beneath the arches. The same objections would apply, though with less force, to a wooden superstructure; and though a cast iron arch was suggested, and was indeed practicable, the consideration of the cost of such a work led to its rejection.

To obviate these difficulties, Telford, one of the most illustrious of modern engineers, proposed a suspension bridge—or revived such a proposition previously submitted by another—and was charged by a committee with the preparation of a suitable plan for its execution.

This is the first important suspension bridge that was constructed in Europe; and it is still justly regarded as one of the noblest specimens of art in existence. The distance between its points of support is 580 feet; the flooring is sustained at an elevation of 128 feet above low tide, and ships pass beneath it under full sail.

The success of this experiment was followed by the prompt extension of the application of the principle of its construction; and its adoption for many sites, both in England and on the Continent, where the difficulties, or anticipated expense, had previously prevented any attempt at the erection of bridges.

The Minister of Public Works in France appointed a distinguished Engineer, M. Navier, with instructions to proceed to England, and examine the most approved works of the kind in that kingdom, and report in detail on their cost and construction

the principles of their equilibrium, and the general advantages that would result from their introduction into France.

The memoir submitted to the Academy of Sciences of Paris, on the subject, by this officer, forms one of the most beautiful applications of science to objects of practical utility with which the profession of the engineer is enriched. The work received the approbation of the Academy, of which its author was elected a member, and a board of engineers added the sanction of their approval in recommending the subject to the attention of Government.

About this period, 1823, M. Seguin, a practical mechanic, of Lyons, constructed at his own cost a suspension bridge across the Rhone, at Tournon, of a material which had not yet been used in any structure of consequence. In this bridge a series of cables, manufactured of iron wire, was substituted for the wrought iron chains, which had been previously employed for the support of the road way. And in a memoir which followed soon after, the same individual described very minutely his mode of constructing these bridges, and sustained his plan by many cogent, and indeed irresistible arguments.

The experiment, though a rude one, was regarded as successful, and was immediately repeated in a superior style, at many points on the same river, and subsequently in many other places in France, and in various parts of Europe. The new system spread with extraordinary rapidity, and there is now no mode of construction in such general use, and few bridges of any other description erected on the Continent.

They are found to be spanning all the principal rivers of France and England, in every part of the Continent, from the Baltic to the Mediterranean; substituting the ferries at different points, and affording access to important places, which, before the improvement of this art, had been precluded from the benefit of a bridge.—*Charles Ellet, Engineer of the Wire Suspension Bridge over the Schuylkill.*

Ericsson Propeller.—The New York Express remarks that since the introduction of the Ericsson Propeller, a new era seems to have taken place in the steam navigation of the country. Every day almost brings accounts of vessels being built upon this plan, and of the introduction of steam boats into new places, such as canals and the like, where they have been refused admittance, from the fear of injury to the banks, produced by the action of the common wheel. The largest vessel propelled by this plan is the Great Britain, to run between New York and Liverpool. The next in importance is the steam-ship Princeton, which has by her late trials fully proved the value of the plan for speed. The question of utility, for freighting purposes, has long since been settled on the lakes, and by numerous lines of freight-boats in the vicinity.

A line of boats of this kind has been in operation two seasons between Hartford and Albany, Hartford and Philadelphia, and from New York to Champlain, in Canada, and a successful experiment is stated to have been made on the Canals of Pennsylvania. A line is also in successful operation on the James River and Kanhawa canals, and two have been sent to Mobile to be used as lighters, a kind of work for which they are well adapted, as their light draught and speed combine two necessary qualities for the despatch of business. A boat of this kind intended for passengers at and near Mobile is also noticed very favorably at Cincinnati, where the boat was exhibiting previous to taking her place on the route. On the route from Portland to Boston, one of the worst on the coast, it is stated that a boat is to be placed early the coming Spring, and a line of six boats, it is said, is to be built at Boston, to run to Albany next Spring. A project is on foot to establish a line of steam freight boats between New York and Richmond, to go through in 48 hours.

TO MARINERS.

Hydrographic Office, *October* 12, 1843,

Cronburgh Light.—The Danish Government has given notice that the improvements in the light of Cronburgh Castle, alluded to in the notice from the office, dated 7th September, 1842, have been completed, by which the light is rendered visible at the distance of three or four leagues.

Falsterbo Light.—The Swedish Government has given notice that a fixed light from lamps has been substituted for the coal fire light previously in use in this lighthouse, in pursuance of arrangements alluded to in the notice from this office, dated 5th July, 1842, and the 2d of January last.

HYDROGRAPHICAL OFFICE.

WEATHER JOURNAL FOR THE WEEK ENDING SATURDAY, NOVEMBER 25, 1843.

DAYS.		Barometer.	THERMOMETERS. Attach.	Sun.	Rad.	Shade.	W. Bulb.	Dew Point.	WEATHER.	Portion cloudy.	WIND.	Force.	Rain, inches.
Monday,	3 A. M.	30.358	70°	26°	27°	35.5°	30°	Rain.	Clear,	0	N.W.	Light.	0.03
Do.	3 P. M.	30.354	67	42	45	46	42	Rain.	Raining.	1.0	Calm.	Calm.	
Tuesday,	3 A. M.	30.036	71.5	39	40	44.5	42	Rain.	"	1.0	"		
Do.	3 P. M.	29.790	69	52	54	54	48	34°	Cumulus.	.5	S. & W.	Mod.	0.53
Wednesday,	3 A. M.	29.586	77	37	37	43.5	39	37	Clear.	.0	N. & E.	Airs.	
Do.	3 P. M.	30.008	66	73	54	52.5	41	35	"	.0	N.W.	Fresh.	
Thursday,	3 A. M.	30.186	76	24	25	32.5	32	31	"	.0	"	Light.	
Do.	3 P. M.	30.040	67	76	63	59	55	49	Cirrus.	.2	S & E.	Light.	
Friday,	3 A. M.	29.860	74	59	59	59	56	Rain.	Rain.	1.0	"	Fresh.	
Do.	3 P. M.	29.810	72	86	68	67.5	64	40	Cumulus.	.4	South.	Light.	
Saturday,	3 A. M.	30.138	76.5	38	39	48	45	34	Clear.	.0	N. & E.	Mod.	0.3
Do.	3 P. M.	30.286	64	76	51.5	52	46		"	.0	N.W.	Light.	

Maximum variation of the needle, November 24, at 18 h., Gottingen time, 1° 34′ 58″ 80.
Minimum, " November 23, at 14 h., " " 1° 29′ 01″ 80.
Mean variation for the week . . . . . 1° 31′ 35″ 13.

ARMY.

WAR DEPARTMENT, *Dec.* 7, 1843.

The Regulation of May 12, 1837, amended July 1, 1837, allowing the sum of *two* dollars to any citizen, non-commissioned officer or soldier, for each able-bodied man he may bring to a Recruiting Rendezvous, and who shall be accepted for the public service, is hereby rescinded.

J. M. PORTER.

The foregoing Regulation is published for the information and government of the army.

By order:

R. JONES, *Adj't General.*

ADJUTANT GENERAL'S OFFICE,
Washington, Dec 7, 1843.

RIFLES.—Col. Harney and Adjt. Sibley have joined at Fort Jesup, the headquarters of the regiment.

6TH INFANTRY.—The headquarters have been changed from Fort Towson to Fort Gibson, and Lieut. Col. Loomis, commanding the regiment, has proceeded to the latter post.

Naval Intelligence.

U. S. VESSELS OF WAR REPORTED.

HOME SQUADRON.—Schooner *Boxer*, Lieut. Com'dg BULLUS, arrived at Norfolk on Saturday last, from Matanzas. The following is a list of the officers attached to the Boxer:

Oscar Bullus, Lt. Com'g.
Liutenants, John Rogers, Carlisle P. Patterson.
Act'g Master, W. C. B. S. Porter.
Ass't Surgeon, C. S. Broughton.
Act'g Purser, Chas. J. Bullus.
Midshipmen, Henry N. T. Arnold, John J. Cooke.

The *Boxer* left Matanzas, 25th ult., having sailed in company with the brig *Somers*. She had a succession of bad weather for the last ten days. 28th Nov. in the Florida Strait, parted company with the brig *Somers*, bound to the south side of Cuba.

BRAZIL SQUADRON.—Sloop-of-war *John Adams*, at Rio, 18th October. All well.

Revenue Service.

Dec. 7. ORDERS.

Third Lieutenant C. L. Collier to the Crawford at Savanah.

Third Lieutenant B. W. Frobel to the Woodbury at New Orleans.

Marriage.

At Maryetta, near Georgetown, S. C, on Thursday evening, 7th inst. Capt. LLOYD J. BEALL, U. S. Army, to Miss FANNY D., only daughter of Col. ARTHUR P. HAYNE, of South Carolina.

Deaths.

In Georgetown, D. C., on Tuesday, the 12th instant, HELEN MARIA, daughter of Commodore CHAS. MORRIS, U. S. Navy.

At Baton Rouge, La., on the night of the 28th November, Mrs. SUSAN AMELIA SEAWELL, wife of Major WASHINGTON SEAWELL, U. S. Army.

At his residence, in Georgetown, D. C., on the 6th instant, Lieut. ALEXANDER H. MARBURY, of the U. S. Navy, in the 36th year of his age.

Dec. ARRIVALS AT WASHINGTON.

Col. G. Croghan, Inspector Gen., Gen. Jesup's.
Lieut. S. C. Ridgely, 4th arty., Georgetown.
Maj. Gen. E. P. Gaines, Mrs. S. S. Ellis's.